REMARKS

Claims 1-10, 12-15 and 17-30 are pending in the application.

Claim Rejection 35 U.S.C. § 102

35 U.S.C. § 102(b)

Claims 1-4, 8 9, 22, 23 and 25-28 stand rejected under 35 U.S.C. §102(b) as being anticipated by Ziemer et al. (United States Patent Number 4,554,766), hereinafter Ziemer. Applicant respectfully traverses.

The Office's present rejection of Claims 1-4, 8, 9, 22, 23, and 25 cites Ziemer for: "See **7** for blower, **20&23** for plenum, **19** for diffuser". The present Action, page 2. This is not the present invention. As the Office is aware,

> [t]he examiner "ordinarily should reject each claim on all valid grounds available." *M.P.E.P. §707.07(g)* Further, "[w]here a major technical rejection is proper, it should be stated with a full development of reasons rather than by a mere conclusion coupled with some stereotyped expression." *Id.*

With regards to the Office's assertion that, "In the field of microchip production, process chamber and clean room are synonyms." Applicant respectfully disagrees. It appears that the Office is attempting to take Official Notice that process chambers included in semiconductor manufacturing device is equivalent to a clean room. As the Office is well aware, Applicants are required to seasonably challenge statements by the Office that are not supported on the record. M.P.E.P. §2144.03. Further, it is noted that "Official Notice" is to be limited to instances where the facts are "capable of instant and unquestionable demonstration as being well-known". M.P.E.P. §2144.03. This is not the present situation. First, in accordance with M.P.E.P. §904 it is presumed that a full search was conducted and this search is indicative of the prior art. The search failed to disclose a reference which would teach or suggest that the Ziemer reference inherently discloses a process chamber air flow system as required for a reference under 35 U.S.C. §102(b). "[i]nherency. . .may not be established by probabilities or possibilities. The mere fact that

a certain thing *may* result from a given set of circumstances is not sufficient." *In re Oelrich*, 666 F.2d 578,581, 212 USPQ 323, 326 (C.C.P.A. 1981) *citing Hansgirg v. Kemmer*, 102 F.2d 212, 214, 40 USPQ 665, 667 (C.C.P.A. 1939). Emphasis added. Consequently, the search revealed that the asserted inherent equivalence between a "process chambers" (such as may be included in a semiconductor manufacturing device and a "clean room" does not exist and therefore is not entitled to be relied upon in order to reject the present claimed invention. An anticipating reference must describe the patented subject matter *with sufficient clarity and detail* to establish that the subject matter existed and that its existence *was recognized by persons of ordinary skill in the field of invention.*" *ATD Corp.v. Lydall, Inc.,* 48 USPQ.2d 1321,1328 (Fed. Cir. 1998) citing *In re Spada*, 15 USPQ.2d 1655, 1657 (Fed. Cir. 1990). Emphasis added.

As recited in claim 1, a process chamber airflow system includes a blower, a plenum, and an air diffuser for causing the initial flow of air to be reduced. The Zeimer reference fails to teach the limitation of a process chamber airflow system including an air diffuser as arranged in claim 1 because the pressure chamber (taken to be the plenum) is not connected to the air diffuser. Instead, the pressure chamber is connected to the intermediate ceiling structure. Further, "anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim." *Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 221 USPQ 481, 485 (Fed. Cir. 1984) (citing *Connell v. Sears, Roebuck & Co.*, 722 F.2d 1542, 220 USPQ 193 (Fed. Cir. 1983)). Emphasis added. *Zeimer* fails to teach the airflow system as is recited in claims 1-4, 8, 9, 22, 23, and 25-28. Removal of the pending rejection under 35 U.S.C. §102(b) to Claims 1-4, 8, 9, 22, 23, and 25-28 is respectfully requested.

Regarding Claim 9, Applicant traverses the Office's rejection under 35 U.S.C. §102(b) over Zeimer. Ziemer discloses a clean room configuration. Ziemer, Abstract. Ziemer fails

to teach a semiconductor production device and therefore fails to anticipate Claim 9. Removal of the pending rejection is respectfully requested.

With respect to the pending rejection of Claim 4 under 35 U.S.C. §102(b), Applicant respectfully traverses. The Ziemer system is inconsistent with the system recited in Claim 4, because the Ziemer reference fails to teach a filter/plenum/diffuser system (as generally recited in Claim 4) in contrast, as asserted by the Office. Ziemer discloses a plenum/filter/plenum/capillary structure. In the Ziemer system the "pressure chamber" (taken to be the plenum) is not connected with the capillary structure which is asserted to be the air diffuser. As the Office is aware, "anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim." *Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 221 USPQ 481, 485 (Fed. Cir. 1984) (citing *Connell v. Sears, Roebuck & Co.*, 722 F.2d 1542, 220 USPQ 193 (Fed. Cir. 1983)). Emphasis added. Removal of the rejection is requested.

With particular regard to the pending anticipation rejection to Claim 28, nowhere does Zimmer indicate the system is applicable to a semi-conductor production device including a process chamber. Further, nowhere does the Zimmer reference teach a process chamber included in a semiconductor production device. Wherein the process chamber includes an airflow system including an air diffuser connected to a plenum which is connected to the process chamber.

As the Office has merely restated its position forwarded in the preceding Action with respect to the pending rejections under 35 U.S.C. §102(b) to Claim 21, Applicant will not burden the record further and will rest on Applicant's arguments forwarded in the preceding Response. Removal of the pending rejections under 35 U.S.C. §102(b) to the previously mentioned claim is respectfully requested and allowance solicited.

Claim Rejection 35 U.S.C. § 103

35 U.S.C. § 103(a)

When applying 35 U.S.C. 103, the following tenets of patent law must be adhered to: (A) the claimed invention must be considered as a whole; (B) the references must be considered as a whole and must suggest the desirability and thus the obviousness of making the combination; (C) the references must be viewed without the benefit of impermissible hindsight vision afforded by the claimed invention; and (D) reasonable expectation of success is the standard with which obviousness is determined. *See MPEP § 2141 and Hodosh v. Block Drug Co., Inc.,* 786 F.2d 1136, 1143 n.5, 220 USPQ 182, 187 n.5 (Fed. Cir. 1986).

With respect to the Office's rejection of Claims 5, 10, and 29 under 35 U.S.C. §103(a) in view of Ziemer (United States Patent Number 4,554,766) in view of Larsson, Applicant disagrees. First, neither Ziemer nor Larsson on the whole disclose a process chamber airflow system for use in microchip production, instead, both are directed to clean rooms. As such, both the Ziemer and Larson references utilize structures common to building construction rather than the structures recited in the instant claims.

> In determining the differences between the prior art and the claims, the question under 35 U.S.C. 103 is not whether the differences themselves would have been obvious, but whether the claimed invention as whole would have been obvious. *M.P.E.P. §2141.02 citing Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 218 USPQ 871 (Fed Cir. 1983). Emphasis original.

Specifically, Ziemer teaches that the filter is to be disposed between a pressure chamber and a distribution chamber. This is not the present invention. On the whole, Ziemer teaches that the filters are to be disposed between the pressure chamber 20 and an air distribution chamber 23 (Ziemer, FIG. 1). Larsson fails to correct the deficiencies in Ziemer, because Larson fails to point out any particular rationale for the asserted location. Thus, while the Office is correct that the cited references are not required to result in a

bodily incorporation, the secondary reference must indicate why it would be obvious to one of ordinary skill in the art at the time the invention was made to make the asserted modification. In the present case, the Larsson reference does not give this indication. Larsson fails to teach suggest or otherwise indicate that the recited filter location was obvious to one of ordinary skill in the art. In fact, Larsson teaches away from disposing a filter between the blower/plenum. The Larsson reference on the whole discloses utilizing a series of filters 4a, 4b, and 4c as a side of the pressure chamber. As the Federal Circuit has cited "A prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention." *M.P.E.P. §2141.02, citing W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984). This is the present situation where neither the Ziemer reference nor the Larsson reference when considered on the whole (as required) disclose the present invention on the whole. Further, as discussed above with respect to the pending anticipation rejection, the Office has failed to substantiate that either the Ziemer or Larsson systems (disclosing clean rooms) would necessarily teach or make obvious (at the time of the invention) a process chamber as recited in the claims. As such, the Office has failed to carry its burden of proving a *prima facie* case of obviousness. Removal of the pending rejection to Claims 5, 10, and 19 is requested and allowance is earnestly solicited.

In the pending Action the Office re-asserts *Zeimer* in view of *Larsson*, further in view of Horneff, United States Patent Number 3,824,909 (hereinafter, *Horneff*) for the proposition of varying the size of the apertures included in the air diffuser. Applicant disagrees. First, none of the cited references disclose process chambers. Further, as discussed directly above, Ziemer in view of Larsson on the whole fails to disclose the limitations of the filter/plenum arrangement as recited in Claim 5 from which Claim 6 depends. In addition, none of the cited references suggest the desirability of combining the *Zeimer* reference, with the *Larsson* reference, with the *Horneff* reference to achieve uniform air distribution

through an air diffuser included in a process chamber. Obviousness cannot be established by combining the teaching of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination. Under section 103, teachings of references can be combined only if there is some suggestion or incentive to do so. *ACS Hosp. Sys., Inc. v. Montefiore Hosp.,* 732 F.2d 1572, 221 USPQ 929 (Fed. Cir. 1984). Further, "Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or the knowledge generally available to one of ordinary sill in the art." *M.P.E.P. §2143.01.* Emphasis added. In the present case, the Office has not established where in the references is the asserted purpose of "for the purpose of better airflow control", or in the converse, why the asserted purpose would be known to one of ordinary skill in the art at the time of the invention.

Claims 7, 24, and 30 are pending rejection under 35 U.S.C. § 103(a). Applicant respectfully disagrees. Office asserts that Chang et al. (United States Patent Number 5,788,567 (hereinafter, *Chang*) for the proposition of including a diffuser formed of static dissipating material. Applicant disagrees. Nowhere, does *Chang* disclose an air diffuser formed of static charge dissipating material. Rather, the cited passage discloses "The apparatus preferably further utilizes an ionizing grid placed between the chassis and the guiding panel, a grounded static-discharge line secured to the guiding panel, or an antistatic solution applied to the guiding panel for preventing buildup of static charges." *Chang*, Col 2, lines 20-24. None of the structures in the cited passage have a diffusing capacity as claimed. As disclosed in *Chang*, an ionization grid appears to be a web of metal wire having no ability to appreciably reduce the flow of air as recited. Moreover Chang discloses that a guiding panel is merely a duct for redirecting a flow of air and does not function as a diffuser as recited in the claims. *Chang*, FIG. 3. Removal of the pending rejection under 35 U.S.C. §103(a) is respectfully requested and allowance solicited.

As the Office has (apparently) merely restated its position forwarded in the preceding Action with respect to the pending rejections under 35 U.S.C. §103(a) to Claims 13-15, 19, 17, 20 and 18, Applicant will not burden the record further and will rest on Applicant's arguments forwarded in the preceding Response. Removal of the pending rejections under 35 U.S.C. §103(a) to the previously mentioned claims are respectfully requested and allowance solicited.

CONCLUSION

In light of the forgoing, reconsideration and allowance of the claims is earnestly solicited.

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